

STAFF REPORT

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PROPOSED COUNTY CODE AMENDMENT

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PROPOSED PFM AMENDMENT

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APPEAL OF DECISION

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WAIVER REQUEST

Proposed amendments to the map of Chesapeake Bay Preservation Areas, Chapter 118 (Chesapeake Bay Preservation Ordinance) of the The Code of the County of Fairfax, Virginia RE: Resource Protection Area Boundaries.

Authorization to Advertise

May 9, 2005

Planning Commission Hearing

June 2, 2005 at 8:15 p.m.

Board of Supervisors Hearing

June 20, 2005 at 4:00 p.m.

Prepared by:

Code Analysis Division

JAF (703) 324-1720

May 9, 2005

NOTE: *Public hearings have been rescheduled from the dates listed in the report to the following dates:*

***Planning Commission
Board of Supervisors***

***Thursday, June 16, 2004 at 8:15 p.m.
Monday, July 11, 2004 at 4:30 p.m.***

STAFF REPORT

A. Issues:

Proposed amendments to the map of Chesapeake Bay Preservation Areas, Chapter 118 (Chesapeake Bay Preservation Ordinance) of the *The Code of the County of Fairfax, Virginia*. The proposed amendments revise the Resource Protection Area boundaries on the adopted map of Chesapeake Bay Preservation Areas. There are no proposed amendments to the text of the Chesapeake Bay Preservation Ordinance.

B. Recommended Action:

Staff recommends that the Board of Supervisors adopt the proposed amendments to the map of Chesapeake Bay Preservation Areas. Staff further recommends that the Board adopt by separate resolution the Policy for Treatment of Approved and Pending Plans of Development for plans impacted by the amendments.

C. Timing:

Board of Supervisors authorization to advertise – May 9, 2005

Planning Commission Public Hearing – June 2, 2005 at 8:15 p.m.

Board of Supervisors Public Hearing – June 20, 2005 at 4:00 p.m.

Effective Date – 12:01 a.m. June 21, 2005

D. Source:

Department of Public Works and Environmental Services

E. Coordination:

The proposed amendments have been prepared by the Department of Public Works and Environmental Services (DPWES) and coordinated with the Office of the County Attorney.

F. Background:

On July 7, 2003, the Board adopted amendments to Chapter 101 (Subdivision Ordinance), Chapter 104 (Erosion and Sedimentation Control), Chapter 112 (Zoning Ordinance), and Chapter 118 (Chesapeake Bay Preservation Ordinance) of the Fairfax County Code and to the Public Facilities Manual (PFM). The amendments

implemented revisions to the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20 et seq.) (Regulations) which required that Resource Protection Areas (RPAs) be designated around all water bodies with perennial flow. The amendments to the various ordinances and PFM became effective on November 18, 2003, following the Board's adoption of amendments to the map of Chesapeake Bay Preservation Areas depicting perennial streams and revised RPA boundaries [2003 map]. The RPA boundaries added to the 2003 map are based on field studies conducted by the DPWES in 2002-2003 to identify all perennial streams throughout Fairfax County using a scientific protocol developed by DPWES and approved by the Chesapeake Bay Local Assistance Board. The Board also directed staff to:

- Review all newly submitted data following adoption of the map amendments to include challenges to the perennial stream designation and recommendations to resolve the challenges, and to make any recommended changes to the maps within 12 months of adoption.
- Review the process for keeping the maps up to date and to report back to the Planning Commission and Board of Supervisors on the process within 12 months following adoption of the maps.

The information provided in the staff report and the proposed amendments to the 2003 map are in response to the Board's directives.

The map originally adopted by the Board in 1993, was based on perennial streams as depicted on United States Geological Survey (USGS) topographic maps. The USGS maps do not accurately depict the extent of perennial streams throughout the County. The stream mapping project was initiated by the Board at the request of the Environmental Quality Advisory Council (EQAC) prior to the State's adoption of its revised Regulations and was originally intended to be completed over a three year time period. Under the original schedule, the field studies would not have been completed by the State's deadline of March 1, 2003, for incorporating the revised Regulations into local ordinances. However, the revised Regulations did not require the County to update the 1993 map and it was anticipated that property owners would be required to have studies performed, as part of the development process, to identify perennial streams not depicted on the 1993 map. When the State extended the implementation deadline from March 1, 2003, to December 31, 2003, it became possible to complete the field work on an expedited basis, using consultants to perform some of the field work, and to prepare an updated map prior to the new implementation deadline. This relieved property owners of the burden of having studies performed for every development site in proximity to a stream located outside of the RPAs depicted on the 1993 map. Even under the expedited schedule, the field work for the planned Quality Assurance/Quality Control (QA/QC) phase of the project was not able to be completed prior to adoption of the maps. The field work for the QA/QC study was performed during the summer of 2004. Results of the QA/QC study are discussed in detail in an attachment to the staff report and summarized below.

QA/QC Study

A total of 13% of the streams initially surveyed between 2002 and 2003 were selected for the QA/QC process. The sites were revisited and rescored using the approved scientific protocol. While the majority of these sites were randomly selected, a number of sites were targeted based on the following criteria:

- Sites with borderline scores or where field notes from the original surveys recommended that the stream be resurveyed in a drier or wetter season.
- Sites where the original determination by DPWES has been disputed.
- Sites with large or small drainage areas compared to other sites classified as perennial in the same watershed.
- Sites where field surveys were completed by consultant teams.

A total of 154 sites were resurveyed during the QA/QC process. Eighty-one percent (124) of the sites were randomly selected and 19 percent (30) of the sites were targeted based on the above criteria. The field resurveys resulted in approximately 7.7 miles of streams being reclassified as perennial and 2.2 miles of streams being reclassified as intermittent. This net change of 5.5 miles of perennial streams shown on the map represents 0.6 percent of the total 850 miles of perennial streams (excluding the shorelines of the Occoquan River, Potomac River and embayments) within RPAs on the adopted 2003 maps. The results of the field surveys for the randomly selected sites indicate the level of quality and dependability of the 2003 maps. Seventy-six percent (94) of the randomly selected sites had no change in the stream classification or upstream extent of perenniality compared to 50 percent (15) of the targeted sites (Table 1). Of the 30 randomly selected sites that had changes, 23 sites had less than a 1000 foot change in the upstream limits of perenniality. Only 2 sites changed more than 1,500 feet. In general, these changes were refinements to the upstream limits of perenniality and were not complete reclassifications of an entire stream.

Table 1. Number (% of Category) of QA/QC sites exhibiting a change in stream classification.

Category	Unchanged	Extended	Retracted	Total Sites	Net Change
Random Sites	94 (76%)	25 (20%)	5 (4%)	124	20 (16%)
Targeted Sites	15 (50%)	14 (47%)	1 (3%)	30	13 (43%)
All Sites	109 (71%)	39 (25%)	6 (4%)	154	13 (8%)

Future Stream Reclassifications

Based on the level of effort and time required to conduct the QA/QC study, which resulted in the reclassification of only 9.9 miles of streams, staff does not recommend that QA/QC studies be conducted on a regular or periodic basis. Future

reclassifications of streams can be performed on a case-by-case basis as the need arises.

The definition of a “water body with perennial flow” in Section 118-1-6 of the Chesapeake Bay Preservation Ordinance reads in part: “A perennial stream means any stream that is both perennial and so depicted on the map of Chesapeake Bay Preservation areas adopted by the Board of Supervisors pursuant to Section 118-1-9(a).” Because of the wording of the ordinance definition and the fact that the adopted map may only be amended by the Board, streams displayed on the map as perennial may be reclassified as intermittent administratively, but streams displayed on the map as intermittent may only be reclassified as perennial by Board action.

The scientific protocol used to identify the perennial streams depicted on the map is a rapid assessment tool that uses hydrological, physical, and biological indicators to classify streams based on a onetime visit. It is predictive tool and does not constitute a definitive determination that a stream is perennial or intermittent. Provisions were included in PFM Section 6-1704.4A to provide for reclassification of a stream segment from perennial to intermittent in the limited circumstance that observational data is provided clearly proving such stream segments to be dry during a nondrought period. Proposed changes to the PFM’s technical requirements for reclassification of perennial streams to better define what observational data is necessary to support a reclassification and to define non-drought conditions were presented to the Board’s Environment Committee on March 28, 2005. A requirement for notification of adjoining property owners, the district Board Member, and Board Chairman that a study to reclassify a stream from perennial to intermittent also will be proposed for incorporation in the Chesapeake Bay Preservation Ordinance. It is anticipated that these amendments will be forwarded to the Board for authorization later this year.

In order to reclassify a stream from intermittent to perennial, the Board must amend the map after holding public hearings before the Planning Commission and the Board. An administrative action by the Board authorizing the public hearings also would be required. The overall process of amending the map would typically be initiated in response to a request from a Board Member to review a stream classification that results in staff determining the original classification of a stream as intermittent is incorrect and a stream is perennial. At the time such reclassifications occur, the Board also may want to provide on a case-by-case basis some consideration for the treatment of pending plans that would be impacted by the reclassification similar to that provided for pending plans impacted by the general map updates.

G. Proposed Amendments:

Section 118-1-9(a) of the Chesapeake Bay Preservation Ordinance requires that there be a map of Chesapeake Bay Preservation Areas adopted by the Board. Chesapeake Bay Preservation Areas include both RPAs and Resource

Management Areas (RMAs). Because the Chesapeake Bay Preservation Ordinance designates all areas outside of RPAs as RMAs, the boundary between the RPA and RMA areas depicted on the map is typically referred to as the RPA boundary. The map is intended to show the general location of Chesapeake Bay Preservation Areas for planning purposes and the actual limits may be further refined by detailed field studies conducted at the time a plan is submitted to obtain a permit to develop a property.

The proposed changes to the map include: revisions to the width (buffer components) of existing RPAs displayed on the 2003 map, the designation of new RPAs along perennial streams identified during the field resurvey (7.7 stream miles), the deletion of RPAs along streams reclassified as intermittent during the field resurvey (2.2 stream miles), the designation of new RPAs along perennial streams incorrectly depicted as intermittent streams on the 2003 map (5.7 stream miles), and the deletion of existing RPAs along stream segments of 500 feet or more that were piped prior to adoption of the 2003 map (2.2 stream miles). In addition, County plan identification numbers for approved RPA boundary delineation studies have been added and the base property map has been updated through January 1, 2005. The Chesapeake Bay Preservation Ordinance provides that where RPA boundaries on the adopted map differ from boundaries as determined from the text of the ordinance, the text shall govern. Therefore, the areas subject to revisions of the width (buffer components) of RPAs along perennial streams depicted on the 2003 maps are not new RPAs for regulatory purposes.

To facilitate administration of the Chesapeake Bay Preservation Ordinance, different shading patterns are used on the map to differentiate between 1993 RPAs (originally adopted in 1993), 2003 RPAs (originally adopted in 2003), and RPAs along newly identified perennial streams (adopted in 2005). Because the RPAs along newly identified perennial streams are based on the 2003 definition of RPAs, they are identified on the map as 2003 RPAs (Revised). All changes to RPA limits are shown in the color red on the proposed maps to highlight changes between the 2003 map and the 2005 map. RPAs on production versions of the adopted maps will be shown in the color green.

H. Regulatory Issues:

At the time of adoption of the amendments to the Subdivision Ordinance, Erosion and Sedimentation Control Ordinance, Zoning Ordinance, Chesapeake Bay Preservation Ordinance, and PFM, the Board separately adopted a policy for the treatment of approved and pending plans of development with respect to said amendments to be administered by the Director of DPWES. Staff recommends that the Board adopt a similar policy for the treatment of approved and pending plans of development affected by the revisions to the 2003 map for those RPAs along newly identified perennial streams.

I. Attached Documents:

Map of Chesapeake Bay Preservation Areas
Board Policy for Treatment of Approved and Pending Plans of Development Affected
by the 2005 Revisions to the Map of Chesapeake Bay Preservation Areas
Fairfax County Streams Mapping Project Quality Control/Quality Assurance
Methodology and Results (Stormwater Planning Division, DPWES, April 2005)